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IRON AGE

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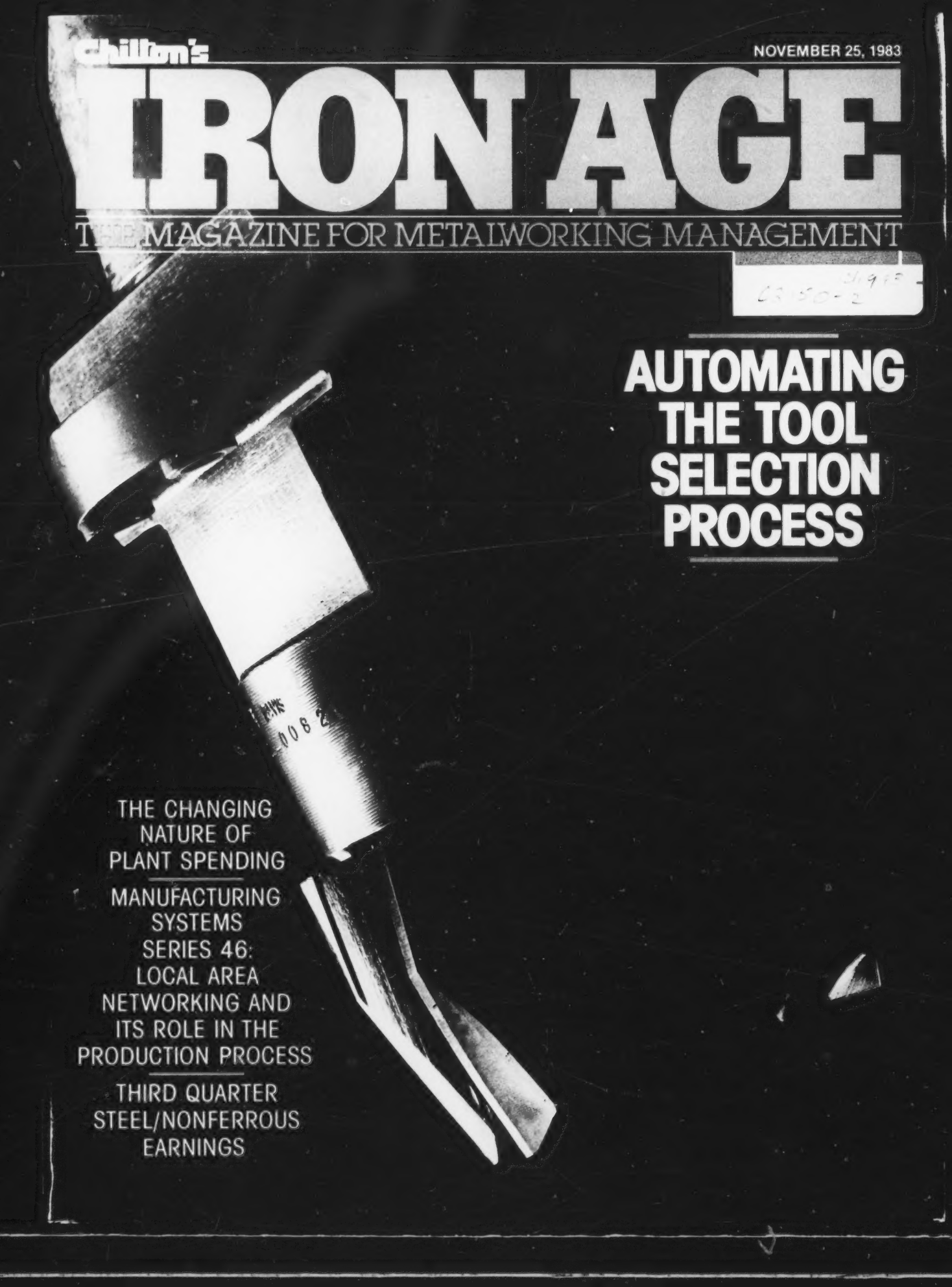

AUTOMATING THE TOOL SELECTION PROCESS

THE CHANGING NATURE OF PLANT SPENDING

MANUFACTURING SYSTEMS SERIES 46: LOCAL AREA NETWORKING AND ITS ROLE IN THE PRODUCTION PROCESS

THIRD QUARTER STEEL/NONFERROUS EARNINGS

VOL. 226, NO. 28

IRON AGE

NOVEMBER 25, 1983

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GM 75

GM at 75: The making of a giant.

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BUSINESS FINANCEFRONT

Buying back their own stock usually works well for companies

There is one corporate strategy of recent years that is taking on more depth if not more breadth. That is the practice of companies buying back their own stock.

A recent study by The Conference Board found that the number of companies repurchasing their own stock has remained "fairly stable." But the board found that the total volume of shares bought back has swelled.

The study found that 297 companies listed on the New York Stock Exchange (NYSE), bought back 218.9 million shares of their common stock in only the first 10 months of 1982. This was up sharply from the 148.4 million shares bought back by some 312 companies in all of 1981. It was also up from the 101.3 million shares bought in 1980.

In an in-depth survey of 72 companies--all NYSE-listed--board analysts dug for reasons behind the buy-back wave. Each of these selected 72 companies had been big buyers of their own common stock during each of the preceding five years.

Corporate Stock Repurchases

	1982	1981	1980
	(10 months)		
No. of Companies	297	312	305
Shares Bought (millions)	218.9	148.4	101.3

Source: The Conference Board

"The sharp increase in 1982 volume," says Conference Board research consultant Francis A. Lees, "undoubtedly reflected the generally depressed conditions of the stock market prices prior to the recovery that began in August 1982, and it demonstrates the determination of many repurchasing companies to exploit favorable buying opportunities."

The chief reason companies buy back their own stock is to be able to use it in their compensation, stock option and employee stock purchase plans. More than half of the companies ranked this purpose as No.1 in importance.

Three other objectives were named by companies. One was to "exploit favorable investment opportunities." As board experts note, "most companies try to time their purchases to take advantage of what they believe are bargain market prices.

Another stated purpose of stock repurchases is to improve earnings-per-share. When stocks are bought back and put in the company treasury, the shares are not counted as 'outstanding,' so they are not included in determining per-share earnings data.

Still another purpose in buying back stock is to provide wherewithal, other than cash, for any acquisitions a company might make. As the board notes, companies often acquire other companies by offering shares of their own stock in exchange for the shares of other companies.

No credit crunch likely this year--but look out!

Where is the big credit market crunch that is supposed to be imminent--or even here by now?

Government financing of the record Federal budget deficit was supposed to meet head-on with big recovery-time borrowing by business and consumers.This earth-thumping confrontation would then send interest rates soaring. After all, with all sectors of the economy then desperately needing money, those who had it to lend could charge premium interest rates.

A this time, the Federal budget is still in the red by some $200 billion and economic recovery is a full year old. But interest rates are showing no signs of a strong run-up.

The fact is that the big borrowing face-off never came about. At least, not yet.

Analysts at Morgan Guaranty Trust Co. have taken a hard look at the entire credit scene and have found four key reasons for the present "renewed optimism in credit markets."

They cite a cooling off from an earlier torrid pace of recovery, some reduction in the volume of government financing, lackluster business credit demand and slower growth in money supply.

In a credit market sector-by-sector analysis by Morgan analysts (see table), they conclude that the market "will be able to handle new credit demands without strain into early 1984 in an environment of fairly stable interest rates."

Then they drop the 'other shoe.'

"By late 1984, the Treasury's still voracious appetite for funds seems likely to coincide with more robust growth in private-credit needs. At that point, congestion could become a concern for credit markets."

If any credit market congestion occurs between now and early next year, it won't likely be due to expanded borrowing by business. Morgan analysts note that plant investment and inventory building is running slightly below what is typical in an early recovery period. At the same time, corporate cash flow has "risen more rapidly than had been expected, as profits of nonfinancial corporations have soared—up nearly 54 pct at an annual rate in the first half of 1983."

The Borrowing Breakout

	Billions of Dollars		
	1982	1983	
	2nd Half	1st Half	2nd Half
Federal Government	$119.7	$102.6	$89.0
State & Local Govt.	30.6	28.2	21.0
Corporate	25.4	9.3	19.0
Mortgages	42.7	69.0	75.0
Consumer	16.6	10.2	16.0
Other	4.3	9.8	7.0
TOTAL	$239.3	$229.1	$227.0

Source: Morgan Guaranty Survey

But the analysts warn that as recovery matures into a business expansion period, business credit needs will swell at the same time as their earnings gain moderately. The government at that time will still be borrowing big.

So, what they are saying is, 'OK for now, but watch out for late 1984.'

The only thing is, that seems hard to believe for an election year.

STEEL/NONFERROUS BEGIN TO SEE SOME DAYLIGHT

U.S. Steel posts net profit of $52 million to pace steel. Aluminum begins to shine. Copper, lead, zinc and nickel still falter.

BY GEORGE J. MCMANUS AND ROBERT J. REGAN

Steel

Third quarter financial returns of steel companies were mildly encouraging.

That is not to say the quarter was a good time for steel. Shipments were down from the second quarter. Price cutting intensified. In many ways, the quarter was a disaster and a disappointment.

What's encouraging however, in a worsening market, is that the industry appeared to turn the corner on profitability. United States Steel Corp. and National Intergroup, Inc., made money in the third quarter.

Also in the black were Carpenter Technology Corp., Nucor Corp., Interlake, Inc., and Laclede Steel Co. Others lost money but in most cases, the losses were down from the second quarter and from the third quarter of 1982.

Obscured by the red ink and skimpy profits was the effect of massive cost cutting throughout the industry. With improved volume and better prices, this effect could come through in dramatic fashion.

Volume is now rising. Steel shipments will go from about 16.5 million tons in the third quarter to as high as 18.5 million tons in the fourth quarter. The price outlook is less optimistic. Steel producers aren't sure when they can dig themselves out of the discounting now underway.

One of the pleasant surprises in the third quarter was U.S. Steel's net profit of $52 million. U.S. Steel got a big lift from Marathon Oil. Third quarter oil and gas operating income of $466 million was up by $176 million from the second quarter.

Inventory liquidation, tax benefit sales, and asset sales also had a favorable impact. However, there was a significant efficiency gain in steel. The operating loss of the steel segment was down by $150 million from the third quarter of 1982.

"We anticipate continued favorable effects from our cost cutting efforts in steel...," said David M. Roderick, chairman of U.S. Steel.

The net loss of Bethlehem Steel Corp. fell from $208 million in the third quarter of 1982 to $59 million in the third quarter of 1983. Bethlehem's operating losses in steel were down sharply in the third quarter and the first nine months of 1982.

LTV Corp. had a net loss of $49.7 million in the third quarter. This was down from the second quarter and from the third quarter of 1982. However, LTV's nine-month loss of $188 million was up from $56.8 million in the first three quarters of 1982.

LTV said demand for tubular products is low but shows signs of improvement. For the first time since 1981, sales of energy products were up in the third quarter (22 pct). The number of drilling rigs at work rose from 1,800 in April to 2,300 at the end of September.

National Intergroup had a net profit of $18.2 million in the third quarter. There was an operating profit of $10.8 million on steel. National also benefitted from profits in aluminum, financial services and other divisions.

Armco Inc. had a net loss of $421.5 million in the third quarter. Of this, $297 million came from special charges resulting from the shutdown of Houston operations. Another $61 million was from the write-off of earlier facility shutdowns.

Armco made money on its carbon and specialty steel businesses in the third quarter. "The flat-rolled carbon steel plants are running at a very high rate because of the strength in the auto and appliance markets and prices are firming," said Harry Holiday, Armco chairman.

In a switch from earlier times, Armco reported depressed results in its oil country business. There was also a loss in financial services.

The net loss of Republic Steel Corp. fell from $74.5 million in 1982 to $35 million in the third quarter of 1983. Republic picked up a non-taxable gain of $20.6 million from the early retirement of a long-term debt.

The effect of price cutting was highlighted by E. Bradley Jones, chairman of Republic. "While nine month shipments this year were practically identical to the 1982 level," said Mr. Jones, "sales were down over 13 pct, reflecting extremely severe price deterioration in the marketplace and an unfavorable product mix."

Inland Steel Co.'s third quarter loss of $21.2 million was down from the second quarter and from the third quarter of 1982. "The continued low demand for bar, structural and plate products, and the accompanying price weakness across all products, were major contributing factors to the company's loss," said Frank W. Luerssen, Inland chairman.'

The company also referred to special cost problems arising from demand for wide sheet products. "Price realization is improving," Inland said.

Wheeling-Pittsburgh Steel Corp. lost just under $9.9 million in the third quarter. Results included $11 million from the sale of tax benefits. Even without this, the loss was down from 1983.

"There has been an improvement in the volume of orders for the fourth quarter, and prospects that this will continue into the first quarter of 1984 are encouraging," said Dennis J. Carney, chairman of Wheeling-Pittsburgh.

Carpenter Technology Corp. contin-

Steel Cuts Its Losses

3RD QUARTER PROFIT REPORT—1983—Millions of Dollars

		Earnings			Sales		
	E/S Pct	3rd Q '83	3rd Q '82	Pct Change	3rd Q '83	3rd Q '82	Pct Change
USS	1.1	52.00	(82.00)	—	4,593.00	4,523.00	+1.5
Bethlehem	—	(59.70)	(208.90)	—	1,221.80	1,195.70	+2.2
Armco	—	(421.50)	(122.60)	—	1,030.50	1,202.90	−14
National	2.7	18.21	(92.56)	—	678.56	797.17	−15
Republic	—	(35.26)	(74.56)	—	677.56	592.76	+14
Inland	—	(21.25)	(45.14)	—	787.42	676.38	+16
LTV	—	(49.70)	(58.30)	—	1,173.70	1,011.50	+16
Total	—	(517.20)	(684.06)	—	10,162.54	9,999.41	+1.6
Cyclops	—	(2.17)	(1.47)	—	259.55	222.67	+16
Interlake	3.4	6.82	1.39	+391	201.32	183.08	+9.9
Wheel-Pgh	—	(9.89)	(26.02)	—	186.71	193.97	−3.7
Carpenter	2.6	2.69	(0.33)	—	102.70	86.81	+18
Lukens	—	(4.73)	0.33	—	85.07	117.29	−27
Copperweld	—	(6.30)	(9.13)	—	80.74	74.52	+8.3
Quanex	—	(0.01)	(5.64)	—	76.20	63.51	+20
CF&I	—	(13.02)	(12.01)	—	62.51	65.48	−4.5
Laclede	2.2	1.09	(0.46)	—	48.96	42.86	+14
Eastmet	—	(3.51)	(1.78)	—	47.61	37.03	+29
Phoenix	—	(6.16)	(10.02)	—	25.75	22.54	+14
Nucor	5.1	7.36	5.99	+20	145.19	121.11	+20

. . . Nonferrous Still Mixed Profit Picture

Millions of Dollars

	Net Income			Net Sales		
	3rd Q '83	3rd Q '82	Pct Change	3rd Q '83	3rd Q '82	Pct Change
Alcan	$27.0	($15.0)	—	$1,323.0	$1,194.0	+10.8
Alcoa	57.7	(14.4)	—	1,393.7	1,145.2	+21.7
Amax	(52.2)	(97.1)	—	548.5	517.1	+6.1
Asarco	2.9	(56.8)	—	386.8	329.1	+17.5
Brush Wellman	6.4	3.2	+100.0	61.1	44.8	+36.4
Cominco	(17.7)	(19.8)	—	305.9	278.0	+10.0
Engelhard	19.1	17.1	+11.7	397.1	533.2	−25.5
Falconbridge Ltd.	13.7	(26.9)	—	136.6	110.2	+24.0
Hecla Mining	7.7	2.4	+220.8	22.8	13.0	+75.4
Inco	(72.1)	(66.4)	—	265.4	233.2	+13.8
Kaiser Aluminum	(36.8)	63.3	—	723.7	897.0	−19.3
Martin Marietta	33.1	38.0	−12.9	983.9	892.0	+10.3
Newmont Mining	16.8	8.8	+90.9	191.2	158.7	+20.4
Noranda Mines	(7.3)	(50.6)	—	788.1	678.4	+16.2
Olin	13.0	11.2	+16.1	486.3	433.9	+12.1
Phelps Dodge	(28.4)	(26.3)	—	236.9	206.3	+14.8
Revere Copper	4.8	(20.0)	—	121.5	123.6	−1.7
Reynolds Metals	17.9	(11.6)	—	893.9	762.5	+17.2
Vulcan Materials	20.7	18.0	+15.0	233.8	198.3	+17.9

( ) denotes loss

Aluminum Co. of America: Net for the 1983 period includes inventory profit of $16.5 million, a non-recurring gain of $9.7 million from exchange of common stock for debentures and nonrecurring charge of $4.6 million relating to permanent closing of an electrical conductor plant. **Amax Inc.:** Net loss for the 1982 period includes a nonrecurring loss of $8.1 million on sale of oil and gas interests. **Asarco Inc.:** Net loss for the 1982 period includes a $51,129,000 charge relating to Chapter 11 filing of Revere Copper & Brass Inc., 33 pct-owned by Asarco. **Brush Wellman Inc.:** Net for the 1982 period includes a $381,000 loss from discontinued operations. **Cominco Ltd.:** Canadian funds. **Falconbridge Copper:** Canadian funds. **Falconbridge Ltd.:** Canadian funds. Net for the 1983 period includes an extraordinary credit of $14,816,000; operating loss was $1,107,000. **Hecla Mining Co.:** Net for the 1983 period includes an extraordinary credit of $2,266,000. **Martin Marietta Corp.:** Net for the 1983 period includes a pre-tax gain of $20 million on sale of assets. **Noranda Mines Ltd.:** Canadian funds. **Revere Copper & Brass Inc.:** Net for the 1983 period includes a tax-loss carry-forward of $462,000. **Kaiser Aluminum & Chemical Corp.:** Liquidation of certain LIFO inventory decreased net loss by $14.6 million. Net for the 1982 period includes nonrecurring gain of $180.6 million on sale of natural gas rights.

ued its profitable ways in the third quarter. Earnings of $2.7 million were up from a loss of $330,000 in the third quarter of 1982. Carpenter's unit volume was up 31 pct from 1982, even though a continued lag was reported in the capital market.

Laclede Steel also continued to make money. Laclede's profit of $1.1 million in the third quarter compared with a loss of $461,000 in the third quarter of 1982. On Oct. 11, Laclede entered into an agreement which will increase the ownership position of Ivaco Inc. to 51 pct. For $10.1 million, Ivaco will purchase over 494,000 shares of newly issued common stock. Ivaco has had a 40 pct interest in Laclede.

Nonferrous

The business recovery of 1983 was more evident on the top line of third quarter reports of leading nonferrous metals companies, where the sales and other revenues are entered, than it was on the bottom line, where it counts.

The profits tally showed varying degrees of improvement against a horrid 1982 showing, but in most instances it was either a case of showing a small profit against a loss in the third quarter last year or a smaller loss this time around. Satisfactory rates of return on sales or investment were conspicuous by their absence.

With the business recovery confined mainly to the consumer sector, the chief beneficiaries were the aluminum companies, which have a big stake in this market. There wasn't much life in the capital goods sector, which meant a negative impact on results of the nickel, copper and molybdenum producers.

Aluminum prices continued to improve in the third quarter, particularly for ingot and other unwrought forms, but there also was some improvement in selected mill product sectors. Ingot shipments by the U.S. comapnies this year are running about even with the 1982 pace, however, while mill product shipments are up about 14 pct.

Can stock remains a fairly strong market and higher domestic passenger car production also is helping build the aluminum producers' shipment volume. Can stock prices were increased during the summer and industry officials said the higher prices were holding up well, with imported material also priced higher around the same time.

Domestic primary aluminum production has been rising steadily since last February, but going into the fourth quarter, the producers still were trailing the 1982 pace by 6.3 pct. The industry managed to trim its unwieldy inventory by about 15 pct in the first three quarters and the producers do not expect the trend to reverse itself even with continued increases in production through the balance of the year. Industry order bookings were down in September from a fairly strong-August showing, reflecting mainly a drop in orders for can stock - which had been up sharply the month before.

Aluminum Co. of America, which expects to have its domestic smelters up to 99 pct of capacity before the end of the year, tied shipment gains to the business recovery and inventory rebuilding by customers. Reynolds Metals Co. said the automotive, construction and consumer durable markets were holding up well and only the defense, aerospace and capital goods sectors were lagging.

Domestic aluminum production continues to rise steadily. Inventory levels are trimmed 10 pct.

Alcan Aluminum Ltd. said world aluminum demand should show an 11 pct gain this year, of which nearly 70 pct will represent a gain in real consumption and the rest pipeline refilling.

Kaiser Aluminum & Chemical Corp. said the $60 million operating sustained by its aluminum division in the third quarter was well below the approximately $100 million losses experienced in previous quarters. The company said it expects its aluminum operations will begin moving back into the black early next year and that gains by other divisions should offset a smaller operating loss anticipated for the aluminum division in the current period.

Kaiser's third quarter shipments were down 13.2 pct from the same 1982 period at 206,900 tons and nine-month shipments were off only 7.6 pct at 592,100 tons.

Copper shipments by U.S. producers are down because key markets, such as capital goods and the electric utilities sectors, continue to lag. Copper prices are down for the same reason, plus the adverse effect of excess production abroad on hedge market prices. The U.S. cathode price averaged 77.5 cts a lb in the third quarter, a level which, although higher than the same 1982 period, still doesn't clear production costs for most domestic companies.

Phelps Dodge Corp. pinned its operating loss for the third quarter on strikes at its Arizona facilities and the El Paso refinery, plus low copper prices. The copper price went lower as the fourth quarter got under way against the background of general concern about interest rates and their effect on residential construction, lacklustre demand and continued high inventories on the metal exchanges.

Amax Inc. narrowed its losses in the third quarter, citing better prices for aluminum and silver and improved margins on nickel. The gains were more than offset by increased losses from molybdenum operations and the effects of a strike on its Australian iron ore operations.

Mine production of copper by Phelps Dodge dropped to 64,500 tons from 73,400 tons in the preceding period. The company's properties continued to operate during the strike, but normal operating levels were not restored until late in the third quarter. The largest unit, at Morenci, Ariz., was completely down for 10 days in August because of the labor dispute. The company's manufacturing units managed a $700,000 operating profit, compared with a $2.9 million operating profit in the third quarter last year, but all other segments were in the red.

Asarco Inc. squeaked out a small profit (before preferred dividend requirements) on a 17.5 pct increase in dollar sales with an assist from higher silver prices and higher copper prices compared with the third quarter last year.

Asarco said consumer-related markets for nonferrous metals "have responded to the economic recovery, but the capital goods sector, which accounts for more than 50 pct of copper consumption, has not."

Inco Ltd. tied a wider loss in the third quarter to "unusual tax adjustments totaling approximately $25 million relating both the prior years, principally Canadian mining taxes, and to a reduction in the effective rate of tax relief expected for the year 1983." Inco said prior quarter results were not restated to recognize the changes in the estimated tax rate and they were recorded in the third quarter results. Inco's third quarter nickel deliveries rose to 63 million lbs from 47 million lbs in the same 1982 period. Copper and silver shipments also gained, but platinum ground metals and gold shipments were down sharply. The company said its inventory of finished nickel products entered the fourth quarter at 69 million lbs, compared with 106 million lbs held at the start of the year.□

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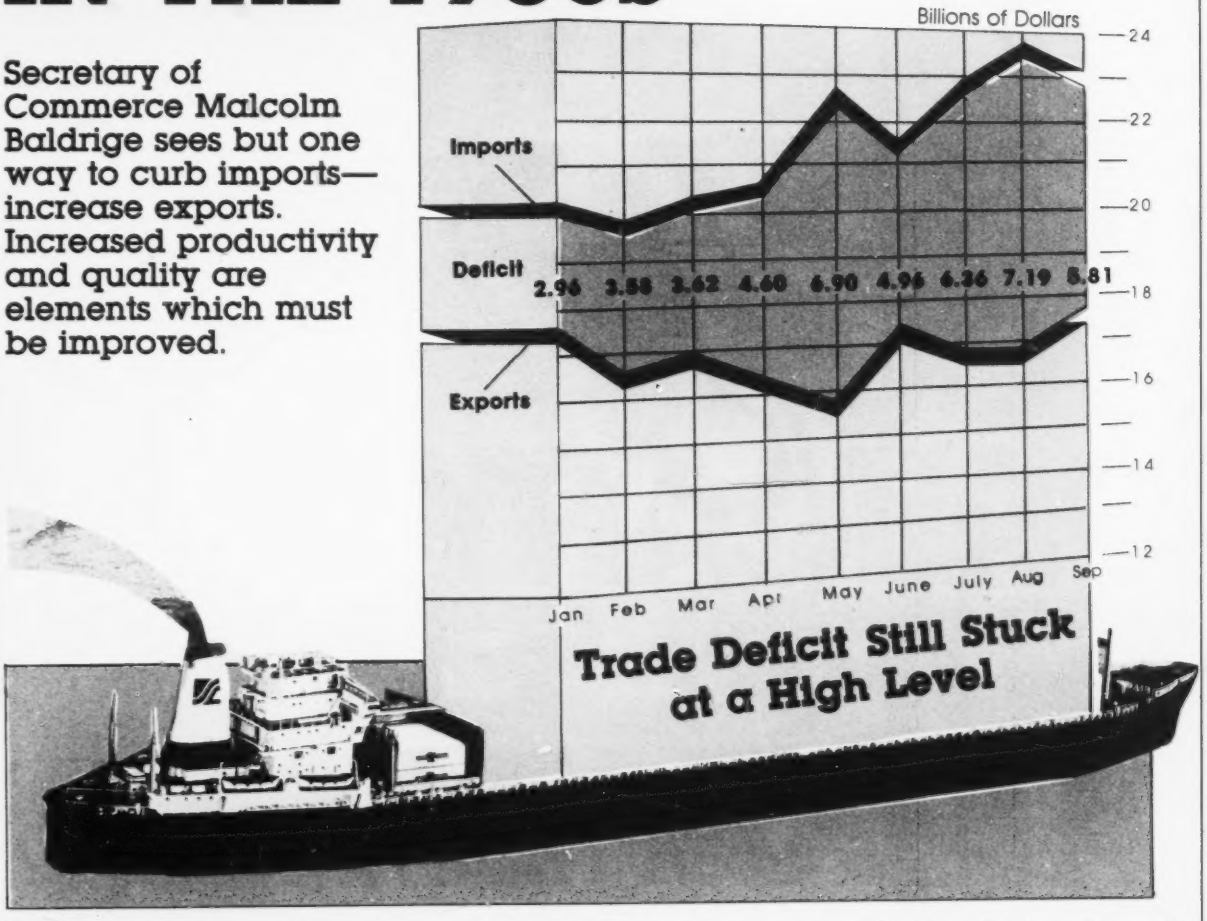
$100B TRADE SHORTFALL POSSIBLE IN THE 1980s

Secretary of Commerce Malcolm Baldrige sees but one way to curb imports—increase exports. Increased productivity and quality are elements which must be improved.



BY EDWIN W. BOWERS

As with its massive budget deficit, America cannot survive with a massive trade deficit. The size of the shortfall and its potential—$31 billion last year and, possibly, $100 billion by 1990—is described by many, including United States Steel Corp. Chairman, David Roderick, as "appalling."

Currently the U.S. imports 18 pct of its steel, 27 pct of its machine tools, 28 pct of its autos and 55 pct of its consumer electric products.

Secretary of Commerce Malcolm Baldrige, in an interview with *Iron Age* asserts "the U.S. has to increase its productivity and quality" if it hopes to compete internationally. "There's no way we can compete unless our businessmen are able to respond to that challenge. You can't export more unless you're competitive."

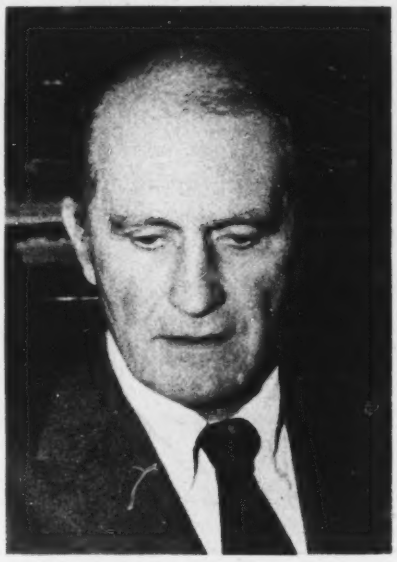
Secretary Baldrige sees increasing exports as the best route to lowering the trade deficit. Mr. Roderick, in a speech in Washington, said the "appalling" prospect of a $100 billion trade deficit before this decade ends "can only be avoided if we, as a nation, insist—which we have not done—that the dollar be kept properly aligned with the currencies of our major trading partners, and that our trade laws be enforced so that the unfair advantage accruing to dumped and subsidized imports is negated."

"Certainly a major factor is the strength of the dollar in relation to the rest of the world's leading currencies," says Secretary Baldrige.

At a trade symposium in Washington, New York University economics professor Melvyn Krauss, claimed the strength of the U.S. dollar can have a positive effect domestically in that it forces U.S. industries—in order to cut costs—to streamline their operations and labor forces.

"That's true of course," says Secretary Baldrige. "But the harmful effects are proportionately greater. We have enough competitive influences to force U.S. businesses to become competitive without having the dollar 20 to 30 pct overvalued. We don't need that to make us realize that we have to become more competitive."

WORLD MACHINE TOOL PRODUCTION AND TRADE, 1982			
Millions of U.S. Dollars			
	Production Total	Exports	Imports
Japan	$3,794.8	$1,263.4	$ 220.3
United States	3,744.3	574.6	1,217.7
FRG (West Germany)	3,504.9	2,129.0	509.6
Soviet Union	2,934.0	245.0	960.0
Italy	1,138.6	639.9	208.6
GDR (East Germany)	808.0	642.0	197.0
Switzerland	768.4	714.0	157.7
United Kingdom	735.5	436.0	404.4
France	622.1	295.0	479.3
Rumania	615.5	144.5	197.5
PRC (China)	470.0	25.0	130.0
Czechoslovakia	438.8	329.1	112.7
Yugoslavia	303.8	95.6	101.8
Spain	260.2	175.5	176.7
Poland	280.0	120.0	140.0
Canada	221.5	154.5	328.7
Sweden	179.8	138.5	151.2
India	211.3	26.4	105.7
Bulgaria	221.0	219.7	273.0
Brazil	210.5	20.8	111.3



"We estimate that every billion dollars worth of exports represents 25,000 jobs."

Malcolm Baldrige,
Secretary of Commerce

"Each industry and the country as a whole has to be sufficiently determined to do what is necessary to really compete for the markets and jobs to which it aspires," says Westavco Corp. President John A. Luke. "The country needs an ongoing, firmly coordinated and clearly articulated world trade policy that speaks to both market access and product subsidy," he asserts.

"Without question," says National Machine Tool Builders' Association (NMTBA) President James A. Gray, "this country needs a clear-cut, foreign trade policy that business can count on now and well into the future."

Mr. Baldrige looks at trade and sees jobs, both here and abroad. "A deficit of about $60 billion is a major factor on employment in the U.S.," he says. "We estimate that every billion dollars worth of exports represents 25,000 jobs. Looking at it from the other side, the incredible amount of imports the U.S. is taking in represents a lot of employment overseas and, thus, development of other nation's economies. It's possible that as their economies begin to take off and catch up with our rate of growth, they will use more of our exports and that will tend to even things up. So the deficit can perform a function of getting other countries' economies started."

Others look at trade and the deficit and they see politics and legislation. It is likely trade, protectionism, exporting and importing will become major issues in next year's elections. In response to a query from the press whether Congress will seriously consider trade legislation in an election year, Mr. Roderick replied: "Probably more so than in a non-election year."

Says Rep. Richard T. Schulze (R., Pa.), "Our trade laws simply do not do what the Congress intended that they do."

Rep. Bobbi Fiedler (R., Calif.) is calling for policies that "ensure that business—especially small business—is provided with adequate trade remedy laws. Otherwise," she says, "we cannot expect them to be involved in exporting and the resultant job creation that entails."

She has introduced a bill amending the 1974 Trade Act allowing greater Congressional initiative in responding to unfair trade practices by other countries. Rep. Schulze has done the same thing. His bill attempts to allow U.S. companies to prove dumping or injury by adopting a test requiring Socialist countries to sell their products in the U.S. at the lowest price charged in a free market country.

The Senate has passed S-144, a trade reciprocity bill which amends current trade laws to give the Office of U.S. Trade Representative authority to recommend trade sanctions to the President. A similar bill—HR 1571—is pending in the House of Representatives. But Rep. James Florio (D., N.J.), says the measure is on the back burner because there is too much pending legislation in too short a time. Other measures, introduced but expected to get short shrift include the proposed Department of International Trade, reform of the U.S. Domestic International Sales Corps. (DISC) laws, and renewal of the duty-free import program for developing country products.

The Reagan Administration proposed converting the present DISC export tax deferral to an export tax exemption for U.S. offshore affiliates, but the House Ways and Means Committee has no schedule for the measure. Business groups appear split over whether DISC should be revised. They seem to generally favor the White House proposal, many company representatives fear that Congress might react by seriously cutting back the export tax incentive as part of an attempt to raise Federal revenue.

Ways and Means, however, has set off on another route. The Trade subcommittee is trying to develop a bill that would tighten U.S. trade laws against foreign export subsidies and dumping.

It looks like the Congress for the rest of the year will stick to the essentials, in this case, meaning the Administration's $8.4 billion International Monetary Fund bill, renewal of the Export-Import Bank's charter and a renewal of the Export Administration Act. On the latter measure, the House has passed its version, Senate action is pending. The House version restricts the President's authority to curtail exports for national security of foreign policy reasons.

"Trade matters should be considered on their merits rather than on foreign policy considerations," says Mr. Gray. "The latter course does not work."

"If our trade laws are enforced and their rationales recognized by our government policymakers," says Mr. Roderick, "we can compete vigorously for our market and part of the world market."

Concludes Rep. Fiedler: "Today the institution of world trade is faced with a choice. It can either proceed toward protectionism and all the hardship that entails or proceed toward the free system of exports that holds the potential for economic growth for America."

The Washington trade symposium concluded, among other things, free trade and free markets, together with cuts in the Federal deficit, will do more to revitalize the U.S. and world economies than trade barriers or a new "industrial policy."

University of Virginia economics professor, Leland Yeager, asserted the market mechanism is the best way of coping with foreign barriers and other economic interventions by governments.

Secretary Baldrige told *Iron Age* he emphatically agrees with that premise. "The market mechanism is the best way to conduct business—period. Any barriers or economic interventions by governments leads to distortion and ends up causing real trade problems. We must be in the leadership of the effort for free trade around the world. In some cases we simply have to invoke some of our fair trade laws because other countries may be subsidizing, dumping or some of the other examples that are non-market actions. There's no question that we should play a continuing leadership role in the efforts toward freer trade around the world."

The market mechanism may be the best solution, so long as it is not breaking down. Such is the case in steel, argues Mr. Roderick of U.S. Steel.

"The dismantling of the market mechanism in the international steel market is the fundamental challenge confronting the U.S. government's steel trade policy," he says. "The worst possible public policy response to the present steel trade crisis would be to act as if the world market were functioning when we know it is not.

"We are not seeking to prevent competitive trade," he explains, "but rather to promote fair competition. When our trade laws are flaunted, we encourage the wholesale entry of every steelmaking nation into our domestic market without fear of penalty or embarrassment."□

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☐ ☐ **(4.)** When inflation occurs, each dollar we have buys more goods and services.

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METALWORKING ORDER TRENDS

Economic recovery continues at sharp, vigorous pace

It looks like American businessmen are bullish on the economy.

Durable goods orders for September indicate the economy is recovering vigorously—perhaps more than anyone expected. Overall, orders received in August totaled $90.3 billion.

That figure was an astounding $17.1 billion better than September 1982, giving an indication of how much the economy has improved over the past 12 months.

Most of the durable goods industries showed increases in new orders in September, but they were partially offset by a large decline in new orders for transportation equipment. In that industry, new orders for motor vehicles and parts declined 14.0 pct in September compared with increases in August and July.

The largest increase in new orders occurred in the nonelectrical machinery category with a jump of $1.9 billion or 12.4 pct.

Also, new orders in September for nondefense capital goods increased for the second consecutive month, up $2.2 billion or 9.5 pct to $25.2 billion.

Durable goods shipments increased by about 2.2 pct or $2.0 billion over August.

Shipments increased in all industries except motor vehicles and parts. That industry showed a large decline of $1.2 billion or 8.4 pct.

There was in an increase in the value of the durable goods inventories in September—$800 million or 0.5 pct to $171.3 billion. This was the fourth increase in the last five months. U.S. manufacturers operated with the lowest level of inventories relative to sales in the past 30 years. Commerce Department chief economist Robert Ortner observed: "Manufacturers are attempting to rebuild inventories, but they're having trouble doing so because shipments are growing so fast. This suggests production will continue to grow strongly in the coming months."

Of the 30 categories shown on the accompanying table, 22 were up in September over August, six were down and two were unchanged. Compared with September 1982, 26 indicators are up this year, with only three lower and one unchanged.

The consensus prediction of most forecasters was for growth of about 3 pct in 1983. However, the economy grew at a strong 9.7 pct in the second quarter, followed by 7.9 pct in the third quarter.

Source: U.S. Dept. of Commerce Billions of dollars, seasonally adjusted monthly total, unless otherwise noted		Latest Month or Qtr.	Previous Month or Qtr.	Same Period Year Ago
Capital Expenditures (Annual Rates)				
U.S. Industry, Total	3rd Qtr.	$313.0*	$293.4	$313.7
Manufacturing, Total	3rd Qtr.	117.4*	108.7	118.2
Manufacturing, Durable Goods	3rd Qtr.	53.0*	48.4	56.6
Mining Industry	3rd Qtr.	13.2*	10.9	14.5
Key Indicators, Durable Goods Manufacturing				
New Orders	Sept.	90.3	89.9	73.2
Shipments	Sept.	91.5	89.5	76.5
Inventories	Sept.	171.3	170.5	182.7
Unfilled Orders	Sept.	311.7	310.0	286.7
New Orders, Metalworking				
Capital Goods Producers, Nondefense Industries	Sept.	25.2	23.0	20.2
Capital Goods Producers, Defense Industries	Sept.	4.8	4.5	4.3
Primary Metals, Total	Sept.	10.9	11.0	7.9
Steel (SIC 331)	Sept.	4.8	4.7	3.3
Iron & Steel Castings (SIC 332)	Sept.	1.3	1.1	0.6
Nonferrous Metals	Sept.	4.8	5.2	4.0
Nonelectrical Mach.-Equip. Industries, Total	Sept.	17.2	15.3	13.9
Engines & Turbines	Sept.	0.8	0.9	0.9
Farm Machinery & Equipment (Shipments)	Sept.	0.9	0.8	0.9
Construction, Mining & Materials Hdlg. Equip.	Sept.	2.6	2.3	2.5
General Industrial Machinery	Sept.	1.3	1.2	1.1
Fluid Power Equipment** (Index-1972=100)	Sept.	276.0	251.0	167.0
Metalworking Machinery	Sept.	0.7	0.7	0.5
Machine Tools, Total (Millions $, unadjusted)***	Sept.	156.0	137.2	86.9
Machine Tools, Metal-Cutting***	Sept.	102.6	91.0	52.6
Machine Tools, Metal-Forming***	Sept.	53.3	46.2	34.3
Electrical Mach. & Equip. Industries, Total	Sept.	14.3	13.9	12.0
Elec. Transmission Equip. & Industrial Apparatus	Sept.	2.1	1.9	1.6
Household Appliances	Sept.	1.3	1.3	1.0
Communication Equipment	Sept.	4.3	3.9	4.5
Transportation Equip. Industrial, Total	Sept.	19.3	21.6	14.8
Motor Vehicles & Parts (Shipments)	Sept.	13.4	14.6	9.5
Aircraft, Missiles & Parts	Sept.	5.7	5.8	4.1
Shipbuilding & Military Tanks	Sept.	0.8	0.7	0.3
Fabricated Metal Products, Total	Sept.	10.8	10.3	8.6
Instruments, Total	Sept.	4.2	4.1	4.1

*Est.—Commerce Dept.; **Source: National Fluid Power Assn.; ***Source: NMTBA.

PLANT OUTLAYS SHIFT IS CRITICAL TO METALWORKING

The big investment bucks are flowing to high technology and service industries—at a cost to basic goods lines.

BY JOHN D. BAXTER

"Capital spending in this country isn't what it used to be. And, as time goes on, it will be less and less of what it used to be."

That's the comment made by an economist who has long studied capital investment trends in U.S. industry.

He wasn't talking about the size and importance of plant spending. He was talking about the mix, or the composition, of that investment.

The conclusion of this economist can be viewed as an outright warning to companies that produce capital equipment for basic goods industries. Their share of the capital spending pie is shrinking--and it will very likely shrink further in the future.

This finding, of course, is not a new one. For years now, a seemingly endless array of economic studies of America's ailing smokestack industries have been pointing to the same conclusion.

The findings are not new really because the investment changing-mix trend is not a new one. Most analysts say the big shift started about 15 years ago. Essentially, the swing in the outlays mix is from basic industrial goods lines to service and high technology lines.

Just one set of data quickly puts the big swing in capital outlays in clear perspective.

In the late 1960's, outlays for basic industrial capital equipment and facilities accounted for about 30 pct of total U.S. business fixed investment. By 1982, that share was down to 18 pct. In contrast, in the late 1960's, outlays for capital products of high technology industries accounted for 11 pct of total investment; in 1982, they acounted for almost 30 pct of all investment.

In sum, high technology industries, chiefly those in information technology, are not where American industry's big investment bucks are going. At the same time, investment bucks flowing to producers of capital goods for basic industries are diminishing.

The studies that show the great shift in shares of capital expenditures are based chiefly on government data. In the government's data groupings, basic industry capital equipment includes agricultural and construction machinery, mining and oilfield machinery, metalworking machinery, special industry and general industry machinery, engines and turbines, fabricated metal capital products and transportation equipment. This last category includes autos, buses, trucks, aircraft, ships and railroad equipment.

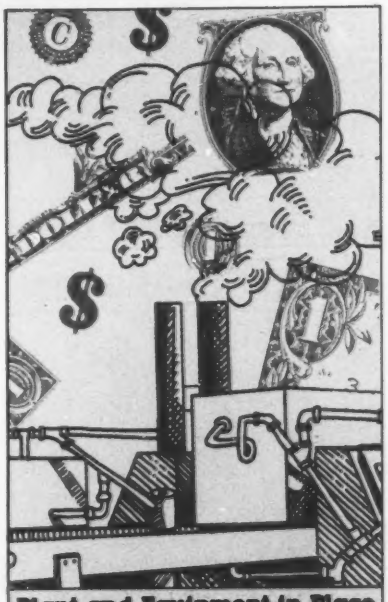
That's a big hunk of U.S. metalworking.

Many companies producing these metalworking capital goods, or, those dependent on the market strength for these goods (such as steel), are already showing signs of adapting to the great change-in-mix in capital investment. These signs are most visible in the many mergers, acquisitions, disinvestments and redeployment of corporate assets seen in basic industries in recent years.

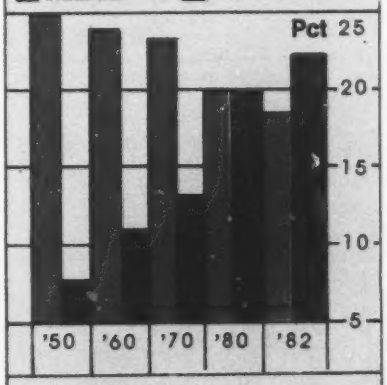
In government data on business investment, the high technology industries are centered in the categories of office, computing and accounting machinery and communications equipment.

The shift in investment mix then is chiefly one from basic industries to information industries.Some analysts label the swing as one from an industrial economy to an information economy.

The swing in investment has been so great for so long that high technology industries now account for the lion's share of the capital plant and equip-



Plant and Equipment in Place
Pct of Total U.S. Industry Capital Stock
Based on 1972 net capital stock

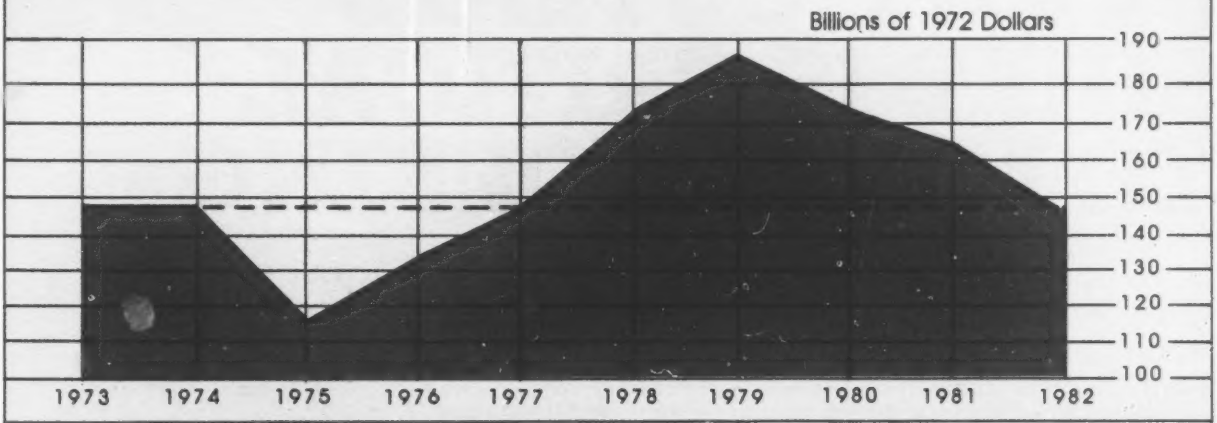


*Basic Industrial Capital Stock:
Heavy machinery & structures. Machinery includes engines & turbines, general industrial machinery (including materials handling equip.), service industry machinery, metalworking machinery, special industry machinery and construction equipment.

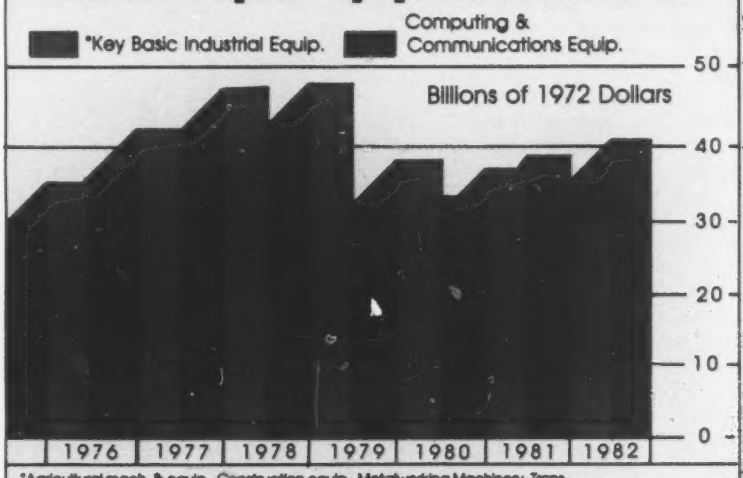
*High Technology Capital Stock:
Electrical & communications equipment, office, computing and accounting machinery, instruments and telephone & telegraph structures.

Source: Morgan Stanley & Co.

Contracts & Orders for Plant & Equipment



Business Capital Equipment Investment



*Agricultural mach. & equip., Construction equip., Metalworking Machinery, Transportation Equip. (autos, trucks, buses, aircraft, ships & RR equipment).

Plant & Equipment Investment Annual Ave. Growth Rates, Pct.

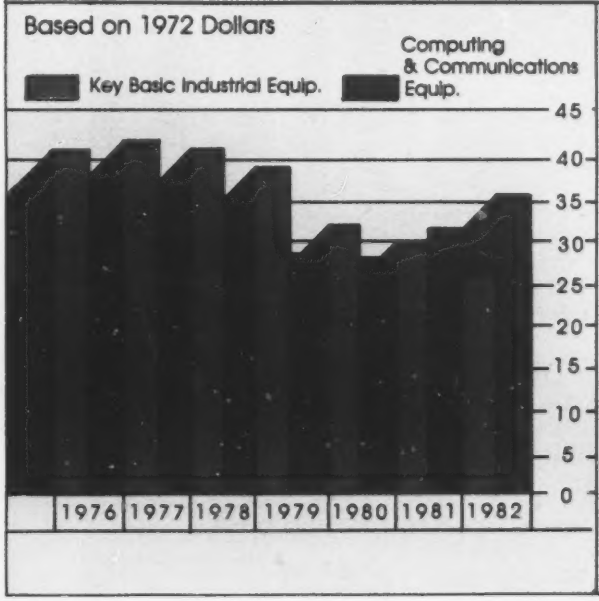
Based on 1972 Constant Dollars

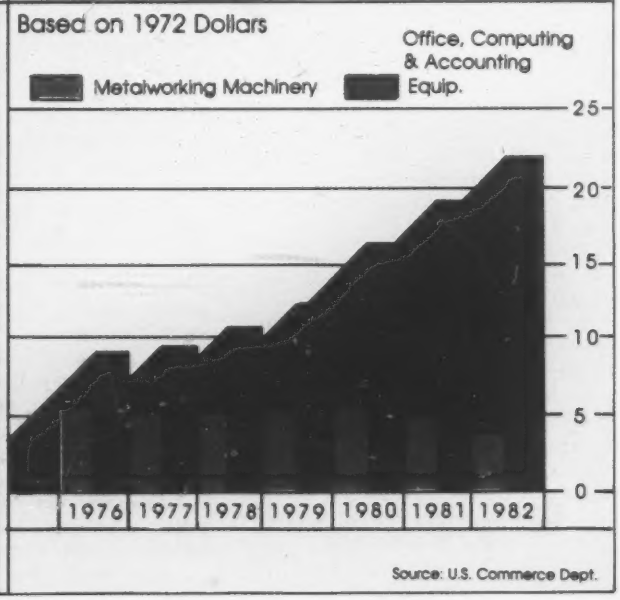
	1960 to 1970	1970 to 1980
Total Business Fixed Investment	5.5%	3.9%
*Basic Industrial	5.3	1.0
Heavy Machinery	5.6	1.7
Structures	4.6	−1.2
High Technology	8.9	9.4
Electrical Machinery	9.6	7.4
Computers	10.2	16.7
Instruments	7.8	7.4
Communications Equip.	6.7	0.3

*See definition chart on preceding page.

Source: Morgan Stanley & Co.

Percents of Total Equipment Investment





Source: U.S. Commerce Dept.

ment in place in U.S. industry, as well as the lion's share of the spending for such goods and facilities. (See chart, p. 51).

One analyst who has studied this swing is Stephen S. Roach, senior economist with the New York investment banking firm, Morgan Stanley & Co.

"Over the past 15 years," he notes, "capital accumulation in the U.S. has undergone a dramatic transformation. Expansion of the nation's industrial base—a hallmark of the two decades after World War II—has given way to the emergence of the 'information economy' and its associated technological requirements.

"For example, in 1960, heavy machinery and industrial plant accounted for about a quarter of this country's total stock of business capital, two-and-a-half times the share of what can be called the stock of information, or high technology, capital.

"Since the mid-60s, the tide has turned. By 1980, high-tech capital achieved parity with basic industrial capacity, and, at the end of last year, it moved into a decisive lead."

Relative shifts in capital stock (the in-place pool of capital plant and equipment to most analysts) are as important as shifts in actual new investment patterns. After all, the in-place pool of capital stock is really the productive capacity of any company or industry.

Mr. Roach is one who sees real significance in the inter-industry shift in capital stock.

He terms the "changing composition of the nation's productive capacity" the most significant shift that has occurred. And this shift features, as noted, the "marked decline in the share of traditional, or smokestack, capital and the rapid growth in the technologically oriented capital base."

The bank analyst notes that in 1982, for the first time in the postwar era, "this country's stock of basic industrial capital actually declined." He sees this continuing through 1984.

When Mr. Roach talks of high technology capital, he refers to "fixed assets primarily used in the creation, manipulation or transmission of information, either in written or coded form." He includes electrical and communication equipment; office, computing and accounting machinery; instruments; and telephone and telegraph structures.

Mr. Roach's definition of basic industrial capital covers those industries noted earlier here. He condenses his definition by saying it is "the heavy machinery and industrial buildings used directly in goods production."

Too, his measure of capital stock is in 'net' terms. He has allowed for depreciation. That is an important distinction in measuring capital stock and capital investment because, as he notes, "...only a small portion of such investment is earmarked for the actual expansion of productive capacity. A very large share—currently around 75 pct—must go to replace aging or worn-out facilities."

The growth of capital stock in high-tech industries seems destined to continue in the years ahead—at a cost to capital stock of basic industries. This is because plant and equipment investment in high-tech industries has lately been accelerating while the investment by basic industries has been flagging.

"The speed of that transformation," says Mr. Roach, "has been especially rapid in recent years."

Analysts at Chicago's Continental Bank confirm this point. They note, "Investment in computers and communication equipment in the early quarters of this recovery accounted for about two-thirds of the total increase in equipment purchases."

In contrast, the Continental Bank analysts point out that investment in heavy industrial and construction equipment fell to levels not seen since the 1960's."

In light of this acceleration-deceleration scenario, it is not suprising that, for example, worldwide shipments of computers from U.S. suppliers are forecast to go up from $34.4 billion last year to $76.6 billion by 1987. That would be about $10 billion more than forecast capital spending by the entire U.S. durable goods manufacturing sector in that latter year.

This forecast on computers, a capital goods item, was made recently by International Data Corp., a leading international business research firm.

Computers, it is said, are to high technology industries what machine tools are to basic goods industries. Notably, while computer shipments have been soaring, investment in machine tools has lagged. In the years 1960 through 1970, machine tool consumption in this country as a percentage of total capital equipment consumption averaged 18.8 pct. In the years 1971 through 1981, machine tool consumption was down to a 14.5 pct average. That trend appears to be continuing.

Ironically, much of the thrust in high-tech capital goods gains has come from investments by manufacturing industries—of which, of course, manufacturers of basic goods make up a big share. The National Assn. of Manufacturers has noted that in 1982, half of the capital spending by U.S. manufacturing industries went for high technology capital goods including computers, instruments and electronic and communications systems.

Another big thrust for high-tech equipment has come lately from service industries. One report notes that this sector's spending on high-tech goods accounts for about 30 pct of all U.S. business capital investment. This share was only 16 pct as late as 1975.

Mr. Roach has found in his studies that capital investment per worker in service industries is growing much faster than in manufacturing.

A recent U.S. Labor Dept. study ranking 145 U.S. industries found that the majority of service industries were actually among the 20 pct of industries that were most capital intensive. Some see an irony in this trend. Deindustrialization seems to be occurring in the manufacturing sector, while industrialization seems to be coming to the service sector in this country.

The service industries are far-flung. They range from public utilities to law firms and from transportation services to retail stores. These industries now outweigh goods-producing industries in this country. This is made clear by just one measure—employment. Services now employ 74 pct of all U.S. workers.

The charts with this article depict clearly the shifting pattern in U.S. business capital investment. The shift away from basic manufacturing capital goods has hit these industries especially hard because of lack of overall growth thrust in in capital investment in this country in recent years. For basic goods industries, the story over these years has been that of a smaller slice of a pie that itself seems to get smaller.

One chart—contracts and orders for plant and equipment—pictures a great deal of cyclical bounce in investment over the past 10 years. However, in 1982, the dollar volume in real terms was right where it was 10 years ago.

Presidential economic adviser Martin Feldstein has termed U.S. overall investment in plant and equipment over the past two decades as, "pathetically low." He is talking in terms of net inflation-adjusted plant and equipment investment only. This means he is looking at investment figures after allowing for depreciation and disregarding inventory and residential investment. On these terms, he has found that only a tiny 3 pct of GNP has gone for net plant and equipment investment over the two-decade period.

Mr. Feldstein's figures contrast sharply with often-published data that shows gross capital spending in

relation to GNP running at high numbers. By this economist's calculations, however, plant spending in this country has been running at very low levels in both historical terms and in comparison with investment by other industrial nations.

The picture of the swing in investment shares is summed up in the chart that compares average annual growth rates in investment in various product lines over the two periods, 1960 to 1970 and 1970 to 1980.

In this chart it is seen that total business investment fell from a 5.5 pct annual growth rate in the earlier period to a 3.9 pct rate in the latter period. The real slide came in investment in basic industrial goods lines; the decline here was from 5.3 pct to 1.0 pct growth.

But, notably, in the same chart, it is seen that investment in high-tech capital goods—despite the overall capital investment growth rate decline—showed a faster growth rate in the latter period compared to the previous one.

There are many implications that come from the great shift taking place in business capital investment in this country.

Certainly, there is a worker retraining implication as basic goods manufacturers meet the investment shift with necessary worker layoffs. Too, there is an impact on national productivity. High-tech and service industries generally have lower productivity than does manufacturing. Thus, the swing away from manufacturing implies lower national productivity levels.

Too, very importantly, the world trade strength of various U.S. industries is affected as investment patterns change. With less new plant and equipment coming onstream in basic industries, these industries are increasingly less able to meet and beat world competition.

In a Brookings Institution study made by Robert Lawrence, he found that the U.S. trade surplus in the products of high-tech industries grew from $12 billion in 1972 to $40 billion in 1979. Over the same time span, the trade deficit in other manufactured products rose from $15 billion to $35 billion.

Still, to executives in basic goods producing companies, the meaningful implications to shifting investment patterns are those that center on their own corporate growth and success.

Some companies are already moving into what one metalworking industry top executive calls, "better corporate balance for the years ahead."

Some other company managers are turning to "strategic shrinkage." This usually involves a downsizing of productive capacity.

Other managers are planning to "stay where we are." One executive of this latter persuasion notes that "a good way to get chewed up is to move into big-growth lines. That's where the tigers congregate. We will stay in our line, toughen ourselves, and I think become big eventual winners..."

There is a seeming growing awareness among managers in basic goods lines that the investment swing is a secular, or long-term one, not just a cyclical one. The last two recessions of 1980-82 hit basic goods with a special fury, it is true, but signs of a structural shift were clear long before 1980.

Whatever course corporate managers in basic goods industries take to cope with the investment shift, that action should have better chances of success if it based on as much information as they can get on how that shift is affecting their own companies.□

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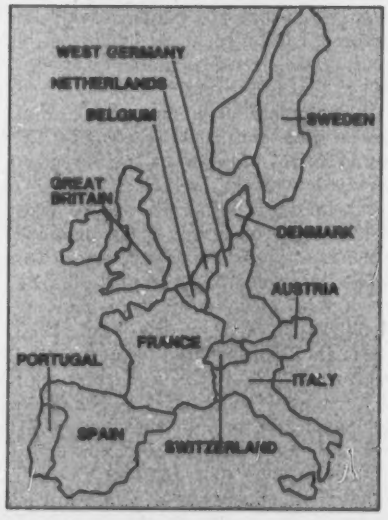

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MATERIALS NEWSFRONT

Price & Production Data

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
North East Coast	182	179	182	160
Buffalo	9	9	9	31
Pittsburgh	236	233	229	137
Youngstown	81	112	112	56
Cleveland	139	142	143	65
Detroit	131	138	132	98
Chicago	506	497	487	322
Cincinnati	85	76	94	64
St. Louis	74	75	80	54
Southern	155	139	142	70
Western	74	73	88	49
U.S. Production	1,672	1,673	1,698	1,106

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports. Rail transportation, handling and unloading may be charged to the account of the buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural)..... gross-ton 80.50-86.9*
Old range, non-bessemer ..... gross-ton $32.78
Mesabi, regular-unscreened ..... gross-ton $32.53
Mesabi, non-bessemer.....gross-ton $30.03-31.53**

*80.50¢—Pickands Mather as of 1/27/81.
86.9¢—U. S. Steel as of 3/15/82. Cleveland-Cliffs as of 2/26/82, Oglebay Norton as of 3/25/82, and Hanna Mining as of 2/26/82.
**Effective 8/1/83.

Steel Production, Composite Prices

(Effective November 14, 1983)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1983	To Date 1982
Net tons, in thousands	1,672	1,673	71,691	64,136
Capability Utilization Rate	57.9	58.0	55.0	48.1

Composite Prices	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 9/1/83)	26.822	26.822	26.822	25.297
Pig Iron* * (Net ton=2000 lbs.)	$213.00	$213.00	$213.00	$213.00
Scrap No. 1 hvy.* * * (Gross ton=2240 lbs.)	$ 80.50	$ 79.17	$ 77.83	$ 51.17
No. 2 bundles	$ 48.17	$ 47.50	$ 46.50	$ 38.83
Scrap Comparison (Gross Ton)				
No. 1 steel, Pittsburgh	$ 84.50	$ 84.50	$ 82.50	$ 52.50
No. 1 steel, Philadelphia	77.50	73.50	71.50	54.50
No. 1 steel, Chicago	79.50	79.50	79.50	46.50
No. 1 bundles, Detroit	81.50	81.50	81.50	41.50
Low Phos., Youngstown	84.50	84.50	84.50	52.50
No. 1 mach'y cast., Pgh	74.50	74.50	74.50	64.50
No. 1 mach'y cast., Phila	95.50	95.50	95.50	98.50
No. 1 mach'y cast., Chi	109.50	109.50	109.50	103.50

*Finished Steel Composite
Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
* *Pig Iron Composite
Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
* * *Steel Scrap Composite
Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

Nonferrous Prices

(Effective November 14, 1983)
Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum	81.00	76.00-81.00	9/27/83
Copper (C)	65.00-66.00	65.00-68.00	11/4/83
Lead	25.00-27.00	26.00-27.00	10/27/83
Magnesium ingot	138.00	134.00-138.00	6/1/83
Nickel	329.00	350.00	11/25/81
Titanium Sponge	555.00-585.00	555.00	4/29/82
Zinc	49.00	46.00-49.00	10/25/83

ALUMINUM: 99.5%. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: electro., Port Colborne, Canada. ZINC: high grade.

Antimony, American Laredo, Texas . $2.00
Beryllium-aluminum 5% Be, per lb. contained Be $215.00
Beryllium-copper, per lb. cont. Be $130.00
Beryllium 97% powder 200 ..... $178.00
Bismuth, ton lots ..... $1.80-$1.90
Cadmium, ton lots $1.25
Calcium, ton lots, crown $3.05
Chromium, 99.8% $3.75
Cobalt, 99%, cathode $12.50
Gold per troy oz. $382.60
Indium, dollars per troy oz. $3.20
Iridium, dollars per troy oz. $600
Magnesium sticks, 10,000 lbs. $1.91
Mercury, per 76-lb. f.o.b. N.Y. ..$340-$350
Molybdenum, lb. tech. moly oxides, 20 lb. MO can $5.85
Nickel oxide sinter at U.S. points of entry $3.12
Palladium, per troy oz. $140
Platinum, per troy oz. $475
Rhodium, per troy oz. $600.00
Silver ingots, per troy oz. $8.895
Vanadium $4.94
Zirconium sponge..... $12.00-$17.00
(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb, EX-SMELTER, based on daily market in Penang in Malaysian dollars per kilo.)

Nov. 7—580.80
Nov. 8—Holiday
Nov. 9—581.27
Nov. 10—583.75
Nov. 11—Holiday

Scrap Prices

Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turning
Copper	63⅛	61
Yellow brass	58	55
Red brass	60⅜	56
Comm. bronze	61	56¾
Mang. bronze	59⅝	57¾
Free cutting rod ends	57	56

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	59
No. 2 copper wire	49
Light copper	40

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	55
No. 2 copper wire	45
Light copper	36
No. 1 composition	52
No. 1 comp. turnings	50
Hvy. yellow brass solids	32
Hvy. yellow brass turnings	28
Radiators	42

Aluminum

New mixed clips	47	—48
Old sheet	45	—46
Old cast	45	—46
Clean dry borings	45	—46

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	40	—41
Mixed L.C. clips	35	—36
Old sheets and cast	33	—34
Borings and turnings	24	—25
Duraluminum clippings	29	—30

Copper and Brass

No. 1 copper wire	51	—52
No. 2 copper wire	43	—44
Light copper	39	—40
Radiators	34	—35
No. 1 composition	43	—44
No. 1 composition turn'gs	41	—42
Cocks and faucets	29	—30
Clean heavy yellow brass	27	—28
Brass Pipe	28	—29
New soft brass clippings	42	—43

Lead

Heavy soft lead	8	— 9
Whole batteries	3	— 4
Type metal	15	—16
Electrotype	13	—14

Nickel

Nickel solids	110	—120
Nickel rod ends	110	—120
Nickel sheets, clips	110	—120
Nickel turnings	50	— 60

Zinc

New zinc clippings	15	—16
Old diecast zinc	10	—11

EFFECTIVE NOVEMBER 14, 1983

MATERIALS NEWSFRONT

(Effective November 14, 1983) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$ 84.00 to	$ 85.00
No. 2 hvy. melting	74.00 to	75.00
No. 1 dealer bundles	105.00 to	106.00
No. 1 factory bundles (auto)	106.00 to	107.00
No. 2 bundles	51.00 to	52.00
No. 1 busheling	99.00 to	100.00
Machine shop turn.	17.00 to	18.00
Shoveling turnings	46.00 to	47.00
Cast iron borings	45.00 to	46.00
Low phos. punchings plate	104.00 to	105.00
Heavy turnings	74.00 to	75.00
No. 1 RR hvy. melting	101.00 to	102.00
Rails 2 ft. and under	106.00 to	107.00
Scrap rails, random lgth.	89.00 to	90.00
RR specialties	104.00 to	105.00
No. 1 machinery cast	74.00 to	75.00
Cupola cast	67.00 to	68.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	600.00 to	610.00
18-8 turnings	500.00 to	510.00

Chicago

No. 1 hvy. melting	$ 79.00 to	$ 80.00
No. 2 hvy. melting	72.00 to	73.00
No. 1 dealer bundles	105.00 to	106.00
No. 1 factory bundles (auto)	105.00 to	106.00
No. 2 dealer bundles	44.00 to	45.00
No. 1 busheling	100.00 to	101.00
Shredder scrap	87.00 to	88.00
Machine shop turn.	32.00 to	33.00
Mixed bor. and turn.	33.00 to	34.00
Shoveling turnings	38.00 to	39.00
Cast iron borings	51.00 to	52.00
Low phos. forge crop	101.00 to	102.00
Low phos. punchings plate ¼ in. and heavier	111.00 to	112.00
Low phos. 2 ft. and under	109.00 to	110.00
No. 1 RR hvy. melting	96.00 to	97.00
Scrap rails, random lgth.	89.00 to	90.00
Reroller rails	104.00 to	105.00
Rails, 2 ft. and under	108.00 to	109.00
RR couplers and knuckles	94.00 to	95.00
RR car axles	119.00 to	120.00
No. 1 machinery cast	109.00 to	110.00
Cupola cast	97.00 to	98.00
Stove plate	97.00 to	98.00
Steel car wheels	102.00 to	103.00
Stainless		
18-8 bundles and solids	560.00 to	570.00
18-8 turnings	460.00 to	470.00
430 bundles and solids	135.00 to	140.00
430 turnings	100.00 to	105.00

Philadelphia

No. 1 hvy. melting	$ 76.00 to	$ 79.00
No. 2 hvy. melting	65.00 to	68.00
No. 1 dealer bundles	92.00 to	95.00
No. 2 dealer bundles	47.00 to	50.00
No. 1 busheling	92.00 to	95.00
Shredder scrap	87.00 to	90.00
Machine shop turn.	23.00 to	26.00
Mixed bor. and turn.	23.00 to	26.00
Shoveling turnings	42.00 to	45.00
Low phos. 5 ft. and under	90.00 to	93.00
Low phos. 2 ft. punchings	101.00 to	104.00
Electric furnace bundles	100.00 to	103.00
RR specialties	90.00 to	93.00
Rails, 2 ft. and under	103.00 to	106.00
Cupola cast	65.00 to	68.00
Heavy breakable cast	53.00 to	56.00
No. 1 machinery cast	94.00 to	97.00

Detroit

Broker buying prices per gross ton on cars:

No. 1 hvy. melting	$ 59.00 to	$ 60.00
No. 2 hvy. melting	57.00 to	58.00
No. 1 dealer bundles	81.00 to	82.00
No. 2 bundles	40.00 to	41.00
No. 1 busheling	80.00 to	81.00
Drop forge flashings	55.00 to	56.00
Machine shop turn.	31.00 to	32.00
Mixed borings and turn.	20.00 to	21.00
Shoveling turnings	31.00 to	32.00
Cast iron borings	34.00 to	35.00
Heavy breakable cast	35.00 to	36.00
Mixed cupola cast	51.00 to	52.00
Automobile cast	74.00 to	75.00
Stainless		
18-8 bundles and solids	470.00 to	480.00
18-8 turnings	350.00 to	360.00
430 bundles and solids	115.00 to	125.00

Youngstown

No. 1 hvy. melting	$ 73.00 to	$ 76.00
No. 2 hvy. melting	51.00 to	54.00
No. 1 dealer bundles	87.00 to	90.00
No. 2 dealer bundles	37.00 to	40.00
Machine shop turn.	13.00 to	15.00
Shoveling turnings	17.00 to	20.00
Low phos. plate	83.00 to	86.00
Electric furnace bundles	78.00 to	81.00
Galvanized bundles	72.00 to	75.00

Cleveland

No. 1 hvy. melting	$ 69.00 to	$ 72.00
No. 2 hvy. melting	34.00 to	37.00
No. 1 dealer bundles	87.00 to	90.00
No. 1 factory bundles	97.00 to	100.00
No. 2 bundles	23.00 to	27.00
No. 1 busheling	86.00 to	89.00
Machine shop turn.	11.00 to	14.00
Mixed bor. and turn.	11.00 to	14.00
Shoveling turnings	13.00 to	16.00
Cast iron borings	16.00 to	19.00
Cut structural & plates, 2 ft. and under	102.00 to	105.00
Low phos. punchings plate	102.00 to	105.00
Drop forge flashings	42.00 to	45.00
Foundry steel, 2 ft. & under	59.00 to	62.00
No. 1 RR hvy melting	77.00 to	80.00
Rails, 2 ft. and under	105.00 to	108.00
Rails, 18 in. and under	106.00 to	109.00
Steel axle turnings	67.00 to	70.00
Railroad cast	80.00 to	83.00
No. 1 machinery cast	87.00 to	90.00
Cupola cast	60.00 to	63.00
Stove plate	45.00 to	48.00
Stainless		
18-8 bundles	375.00 to	385.00
18-8 turnings	325.00 to	335.00
430 bundles	80.00 to	85.00

Buffalo

Broker buying prices per gross ton on cars:

No. 1 hvy. melting	$ 63.00 to	$ 64.00
No. 2 hvy. melting	51.00 to	53.00
No. 1 busheling	74.00 to	75.00
No. 1 dealer bundles	74.00 to	75.00
No. 2 bundles	35.00 to	36.00
Machine shop turn.	12.00 to	13.00
Mixed bor. and turn.	13.00 to	14.00
Shoveling turnings	17.00 to	18.00
Cast iron borings	12.00 to	13.00
Low phos. plate	74.00 to	75.00
Structural and plate, 2 ft. and under	74.00 to	75.00
Rails, 2 ft. and under	84.00 to	85.00
Scrap rails, random lgth.	69.00 to	70.00
No. 1 machinery cast	75.00 to	76.00
No. 1 cupola cast	54.00 to	55.00

St. Louis

No. 1 hvy. melting	$ 72.00 to	$ 73.00
No. 2 hvy. melting	61.00 to	62.00
Foundry steel, 2 ft.	61.00 to	62.00
No. 1 dealer bundles	72.00 to	73.00
No. 2 bundles	58.00 to	59.00
Machine shop turn.	20.00 to	21.00
Shoveling turnings	27.00 to	28.00
Cast iron borings	38.00 to	39.00
No. 1 RR hvy. melting	81.00 to	82.00
Rails, random length	78.00 to	79.00
Rails, 18 in. and under	94.00 to	95.00
RR specialties	87.00 to	88.00
Cupola cast	70.00 to	71.00
Heavy breakable cast	48.00 to	49.00
Stove plate	75.00 to	76.00
Cast iron car wheels	49.00 to	50.00
Rerolling rails	99.00 to	100.00
Unstripped motor blocks	57.00 to	58.00

Birmingham

No. 1 heavy melting	$ 70.00 to	$ 71.00
No. 2 heavy melting	66.00 to	67.00
No. 1 dealer bundles	72.00 to	73.00
No. 2 bundles	52.00 to	53.00
No. 1 busheling	72.00 to	73.00
Shredder scrap	94.00 to	95.00
Machine shop. turn.	24.00 to	25.00
Shoveling turnings	32.00 to	33.00
Cast iron borings	33.00 to	34.00
Electric furnace bundles	67.00 to	68.00
Elec. furnace, 3 ft. & under	75.00 to	76.00
Structural and plate, 2 ft.	97.00 to	98.00
Structural and plate, 4 ft.	92.00 to	93.00
No. 1 RR hvy. melting	92.00 to	93.00
Scrap rails, random lgth.	86.00 to	87.00
Rails, 18 in. and under	100.00 to	101.00
Angles and splice bars	94.00 to	95.00
No. 1 cupola cast	87.00 to	88.00
Unstripped motor blocks	64.00 to	65.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 65.00 to	$ 66.00
No. 2 hvy. melting	58.00 to	59.00
No. 1 dealer bundles	74.00 to	75.00
No. 2 bundles	32.00 to	33.00
Machine shop turn.	10.00 to	11.00
Shoveling turnings	12.00 to	13.00
Cast iron borings	17.00 to	18.00
Low phos. 18 in. and under	92.00 to	93.00
Rails, random length	73.00 to	74.00
Rails, 2 ft. and under	91.00 to	92.00
No. 1 cupola cast	70.00 to	71.00
Heavy breakable cast	36.00 to	37.00
Drop broken cast	82.00 to	83.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 40.00 to	$ 45.00
No. 2 hvy. melting	37.00 to	40.00
No. 2 dealer bundles	23.00 to	27.00
Mixed bor. and turn.	11.00 to	13.00
Machine shop turn.	6.00 to	7.00
Shoveling turnings	14.00 to	15.00
Clean cast. chem. borings	35.00 to	36.00
No. 1 machinery cast	39.00 to	90.00
Mixed yard cast	45.00 to	46.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	490.00 to	510.00
18-8 turnings	390.00 to	410.00
430 prepared solids	70.00 to	80.00
410 solids	60.00 to	70.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 50.00 to	$ 52.00
No. 2 hvy. melting	40.00 to	42.00
No. 1 dealer bundles	68.00 to	70.00
No. 2 bundles	33.00 to	35.00
No. 1 busheling	68.00 to	70.00
Shredder scrap	68.00 to	70.00
Machine shop turn.	8.00 to	10.00
Shoveling turnings	13.00 to	15.00
No. 1 machinery cast	90.00 to	95.00
Mixed cupola cast	40.00 to	42.00
Heavy breakable cast	10.00 to	12.00

San Francisco

No. 1 hvy. melting	$ 44.00 to	$ 46.00
No. 2 hvy. melting	36.00 to	38.00
No. 1 dealer bundles	29.00 to	31.00
No. 2 dealer bundles	13.00 to	15.00
Machine shop turn.	6.00 to	8.00
Cast iron borings	6.00 to	8.00
No. 1 cupola cast	73.00 to	75.00

Los Angeles

No. 1 hvy. melting	$ 40.00 to	$ 42.00
No. 2 hvy. melting	29.00 to	31.00
No. 1 dealer bundles	27.00 to	29.00
No. 2 dealer bundles	10.00 to	12.00
Machine shop turn.	6.00 to	8.00
Shoveling turnings	10.00 to	12.00
Cast iron borings	6.00 to	8.00
Elec. furnace, 1 ft. and under (foundry)	73.00 to	75.00
No. 1 cupola cast	75.00 to	77.00

Seattle

No. 1 hvy. melting	$ 61.00 to	$ 63.00
No. 2 hvy. melting	50.00 to	52.00
No. 2 bundles	40.00 to	42.00
No. 1 cupola cast	96.00 to	98.00
Mixed yard cast	83.00 to	85.00

Hamilton, Ont.

Brokers buying price per net ton on cars:

No. 1 heavy melting	$ 65.00
No. 2 heavy melting cut 2 ft. and under	62.00
No. 1 dealer bundles	70.00
No. 2 bundles	38.00
Mixed steel scrap	44.00
Bush. new fact. prep'd.	68.00
Bush. new fact. unprp'd.	60.00
Machine shop turn.	33.00
Short steel turn.	36.00
Mixed bor. and turn.	23.00
Cast scrap	58.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 79.00 to	$ 80.00
No. 2 hvy. melting	63.00 to	65.00
No. 2 bundles	41.00 to	43.00
Machine shop turn.	22.00 to	23.00
Crushed turnings	46.00 to	48.00
Shredder scrap	79.00 to	80.00
Cut structural plate 2 ft. and under	94.00 to	96.00
Unstripped motor blocks	57.00 to	59.00
Cupola cast	78.00 to	80.00